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AUTHOR Davey, Beth; LaSasso, Carol
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ABSTRACT

The study examined the relations of cognitive style (field independence) to reading comprehension test performance for 48 prelingually, profoundly deaf adolescents. Ss read passages and answered comprehension questions consisting of two Information Types (text-explicit, text-implicit), Lookback Conditions (lookback, no-lookback), and Question Formats (multiple-choice, free-response). Analyses conducted for composite test scores and separate test components revealed significant interactions between cognitive style and several reading comprehension test facets, most notable those involving memory and restructuring of information (e.g., items which incorporated no-lookback). Implications are drawn for researchers and practitioners concerned with optimal assessments of cognitive and linguistic skills for deaf students. (Author/CL)

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RELATIONS OF COGNITIVE STYLE TO ASSESSMENT COMPONENTS OF READING COMPREHENSION FOR DEAF ADOLESCENTS

Beth Davey
University of Maryland

Carol LaSasso
Gallaudet College

Abstract

This study examined the relations of cognitive style (field independence) to reading comprehension test performance for prelingually, profoundly deaf students. Forty-eight subjects read passages and answered comprehension questions consisting of two Information Types (text-explicit, text-implicit), Lookback Conditions (lookback, no-lookback), and Question Formats (multiple-choice, free-response). Analyses conducted for composite test scores and separate test components revealed significant interactions between cognitive style and several reading comprehension test facets, most notably those involving memory and restructuring of information (e.g., items which incorporated no-lookback). Implications are drawn for researchers and practitioners concerned with optimal assessments of cognitive and linguistic skills for deaf students.

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Introduction

A challenge to practitioners and researchers over the years has been the accurate assessment of reading comprehension processes of deaf students. It has been suggested that the validity of such reading comprehension measures can be affected by linguistic features of texts and questions (e.g., Anderson, 1978; Conley, 1976; Drum, Calfee, & Cook, 1981; Haertel, 1980; Rudner, 1978; Russell, Quigley, & Power, 1976), by formats of question tasks (e.g., Heim & Watts, 1967; Kendall, Mason, & Hunter, 1980; LaSasso, 1979; McKee & Lang, 1982; Traub & Fisher, 1977; Ward, 1982), by types of information assessed (e.g., Wilson, Karchmer & Jensema, 1978), and by certain task conditions, such as timing and reinspection-of-text options (e.g., Harding, 1978; Kender & Rubenstein, 1977). One recent study explored the effects on reading comprehension of interactions among question format, type of information, and lookback conditions, revealing significant differences between hearing and deaf readers most notably in lookback strategies for free-response type items (Davey, LaSasso & Macready, in press). Investigations of this type--focusing on interactions between reader characteristics and testing task characteristics--can be particularly helpful in guiding educators toward informed decisions concerning optimal measurement tasks for students sharing certain individual difference characteristics (e.g., Benson & Crocker, 1979).

One important individual difference characteristic which may relate to reading comprehension test performance is cognitive style. Cognitive styles have been referred to as "process-oriented" individual differences (Wittrock, 1979), reflecting relations among perceptual, cognitive, and certain personality variables which appear to affect dimensions of information-processing. These individual differences are thought to be consistent and relatively stable over

time for individuals. One particular cognitive style which has been shown to relate to many aspects of reading comprehension for hearing students is field independence (e.g., Annis, 1979; Davey, 1983; Denny, 1974; Spiro & Tirre, 1980).

Field independence was originally described by Witkin (1950) using a variety of spatial tasks. These tasks (body-adjustment tasks and rod-and-frame tasks) required subjects to indicate the true vertical upright while the surrounding "field" context was rotated. Later, paper-and-pencil "embedded figures tasks" required subjects to identify a target form embedded within a complex design. Subjects with high scores on such tasks were termed "field independent." They appeared to employ highly articulated analytical strategies, disembedding salient information from irrelevant, competing contexts. Subjects with low scores were identified as "field dependent," reacting more globally to the total field and demonstrating greater dependence on external referents for structure. Much research has documented relations of field independence to a variety of academic tasks and personal behaviors for hearing subjects (Witkin, 1978; Witkin, Moore, Goodenough & Cox, 1977). Several recent investigations have suggested a rather consistent relation of field independence to tasks involving memory efficiency and general cognitive restructuring (e.g., Bennink & Spoelstra, 1979; Berger & Goldberger, 1979; Davis & Frank, 1979; Goodenough, 1976; Robinson & Bennink, 1978). Findings from these studies imply that field independence should relate to those reading comprehension assessment tasks involving the effective use of memory strategies and those requiring internal structuring and inferencing.

The limited number of studies investigating cognitive styles and deafness (e.g., Blanton & Nunnally, 1964; Fiebert, 1967; Parasnis, in press; Parasnis & Long, 1979) suggest that field independence may be a particularly relevant variable for study in explicating the roles of visual and spatial systems in verbal information-processing tasks for deaf individuals. Deafness may "...place

demands on the visual system which may alter both the functioning of the visual system and the selection and processing of information in the conceptual/memory system" (Parasnis & Samar, 1982, 54). Thus, the role of cognitive style factors in reading comprehension processes should be informative to both researches exploring information-processing systems of deaf individuals and to educators confronted with decisions concerning accurate assessments for deaf students.

The purpose of the present investigation was to describe the relations of cognitive style (field independence) to three facets of reading comprehension assessment for deaf students: Question Format (multiple-choice, free-response), Lookback Condition (lookback, no-lookback), and Information Type (text-explicit, text-implicit items).

Method

Subjects

Subjects consisted of 48 prelingually, profoundly deaf students all scoring between 5.0 and 7.9 grade equivalent on the Reading Comprehension subtest (Intermediate, Form B) of the Stanford Achievement Test (SAT-HI). These adolescent-aged subjects (mean age: 16 years) attended a residential school for the deaf, had become deaf prior to the age of two years, and demonstrated a hearing loss of greater than 85 dB (ISO) for the speech frequencies of 500, 1000, and 2000 Hz. No subjects had additional documented handicapping conditions.

Prior to implementation of the study, all subjects took a modified form of the Groups Embedded Figures Test (Witkin, Oltman, Raskin, & Karp, 1971) to assess cognitive style. This task requires individuals to identify by pencil-outlining a target shape within a complex design. Subjects must hold the stimulus form in memory while looking back to the design context. Scores related to this task ranged from 0 to 17 (X=9.83). Since some cognitive styles investigations have

identified sex differences in GEFT performance, a preliminary analysis was conducted which ruled out possible interactions with sex (t_{46}=.83). The split-half reliability coefficient (adjusted by the Spearman-Brown formula) was .74.

Materials

From an initial pool of 20 passages, 12 were selected which were judged to be most comparable in terms of length (approximately 250 words), style (expository), reading difficulty (approximately 5th grade reading level according to the Fry formula), and degree of interest and familiarity (based upon pilot studies with hearing and deaf students). All passages were modified from the Standard Test Lessons in Reading (McCall & Crabbs, 1961).

For each passage, ten wh- type comprehension questions were generated. Five questions tapped text-explicit information within the passage (the correct response could be underlined in the text itself; the information was directly-stated). The remaining five questions assessed text-implicit information (the correct response was not contained within the language of the passage; text-inferencing was required. These two categories of passage information (explicit and implicit) were based upon the Pearson and Johnson (1978) taxonomy. The appropriateness of item classification was validated prior to the study by four reading specialists with independent ratings, reaching 100% agreement.

All items were developed in two question formats: multiple-choice (containing four options) and free-response. The question stems remained identical under each format. Pilot study analysis confirmed the passage dependency of all items (Pyrczak, 1975-1976). Item difficulties were determined (administered under the multiple-choice format) in a pilot study of 120 hearing students reading between 5th and 7th grade level. Based on this information, eight items were retained for each passage (four "explicit" items and four "implicit" items) which ranged in difficulty between .40 and .80.

Passages and their accompanying eight questions were then grouped into triads in order to have sufficient items for adequate reliabilities. These groupings were based on comparable overall difficulty for items, resulting in 24 items per triad (12 explicit and 12 implicit).

Subjects were tested in group settings in four testing sessions on four consecutive days. All subjects eventually read each passage triad under a different test condition: multiple-choice, lookback; multiple-choice, no-lookback; free-response, lookback; free-response, no-lookback. This design allowed for descriptions of the effects and interactions of three reading comprehension test facets: Question Format, Lookback Condition, and Information Type (explicit and implicit items). Assignments of triads and test conditions to subjects were randomly determined. All testing tasks included practice and warm-up items and were administered as untimed tasks.

Results

To describe relations between cognitive style and reading comprehension test components, correlations were computed between cognitive style scores and total reading comprehension test scores as well as for composite test component scores (including the test facets of Question Format, Lookback Condition, and Information Type). All tests of significance were conducted at the .05 level.

Cognitive style accounted for 7% of the total reading comprehension test score variation. The proportion of total variation accounted for by the covariation between cognitive style scores and test facet variables is presented in Table 1. It may be noted that cognitive style accounted for a significant proportion of reading comprehension score variation for only one level of each test facet: free-response items (9%), no-lookback items (9%), and text-implicit items (9%). Moreover, when both levels within each of the three test facets are combined, there is

a negligible increase in variance accounted for by cognitive style (and this relation is not statistically significant).

Table 1

Proportion of Total Variation Accounted for by Cognitive Style and Reading Comprehension Facets

Test Variables Facets	r^2
Total Test	.07*
Question Format	
Multiple-choice (MC)	.02
Free-response (FR)	.09*
MC + FR	.10
Lookback Condition	
Lookback (L)	.03
No-lookback (NL)	.09*
L + NL	.09
Information Type	
Explicit (E)	.03
Implicit (I)	.09*
E + I	.09

* $p < .05$

Table 2 depicts proportions of separate test component variation accounted for by cognitive style. These separate test components reflect the joint combinations of the three test facets of Question Format (multiple-choice, free-response), Lookback Condition (lookback, no-lookback), and Information Type (explicit, implicit). All of the three components which were significantly related to cognitive style incorporated the no-lookback condition. In fact, the only test component utilizing the no-lookback condition which did not relate to cognitive style scores pertained to explicit information in the multiple-choice format. In addition, the two test components with the strongest relations to cognitive style utilized the free-response question format.

Table 2

Proportion of Total Variation Accounted for by Cognitive Style for Separate Test Components (r^2 values)

	No-Lookback		Lookback	
	M.C.	F.R.	M.C.	F.R.
Explicit	.00	.13*	.01	.01
Implicit	.06*	.09*	.05	.02

* $p < .05$

M.C. = multiple-choice formats

F.R. = free-response formats

Since these initial correlational analyses revealed significant cognitive style relations with several separate reading comprehension test components, a multifactor repeated measures analysis of variance was performed to better describe interactions between test component variables and cognitive style. For the between-subjects factor of cognitive style, subjects were blocked by GEFT scores into high ("field independent") and low ("field dependent") groups (N=24 in each group). The three within-subjects factors were the test facets of Question Format, Lookback Condition, and Information Type. Mean scores for the separate test components are reported in Table 3.

Results of the analysis are presented in Table 4. All main effects except Cognitive Style were significant. Mean scores were higher for multiple-choice (6.71) than for free-response (4.94), were higher for lookback (6.48) than for no-lookback (5.16), and were higher for explicit (6.91) than for implicit (4.74) item types. In addition, several two-way and three-way interaction effects were statistically significant. Two interactions are of particular relevance to this study.

Table 3

Mean Scores for Test Components by Cognitive Style Groups

Field Dependent	Mean Score
MC x L x TE	8.83
MC x L x TI	5.29
MC x NL x TE	7.71
MC x NL x TI	4.88
FR x L x TE	7.33
FR x L x TI	4.80
FR x NL x TE	3.67
FR x NL x TI	3.42
Field Independent	
MC x L x TE	8.54
MC x L x TI	5.63
MC x NL x TE	7.17
MC x NL x TI	5.63
FR x L x TE	6.92
FR x L x TI	4.54
FR x NL x TE	5.08
FR x NL x TI	3.75

MC = multiple-choice
FR = free-response
L = lookback
NL = no-lookback
TE = text-explicit
TI = text-implicit

Table 4

Analysis of Variance Summary Table

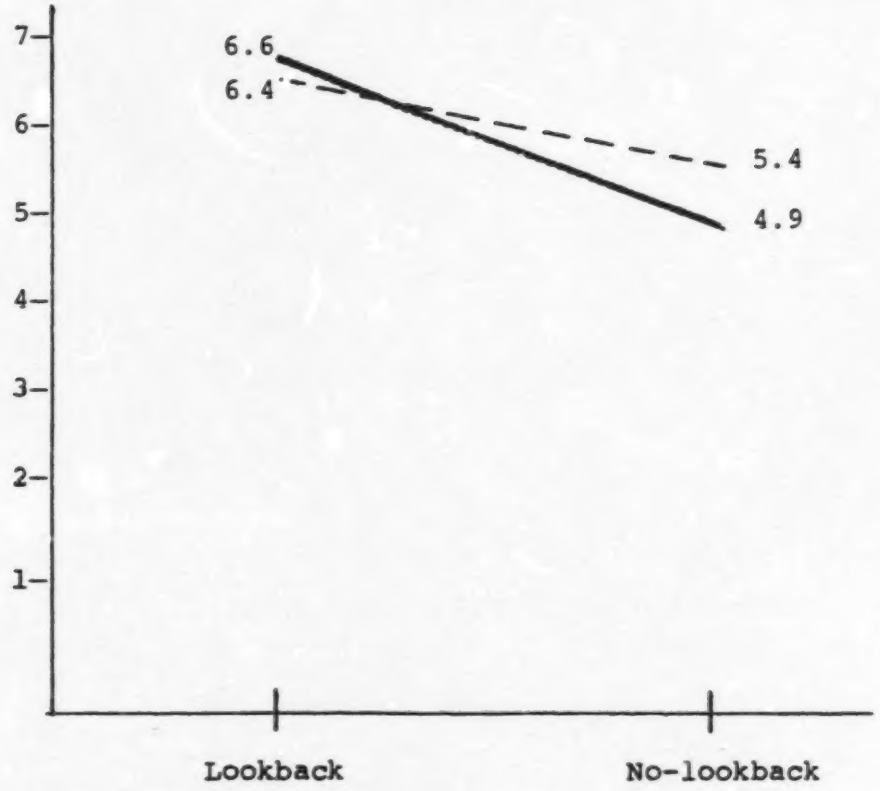
Source	df	MS	Error	df	MS	F
Cognitive Style (C)	1	2.67	Subject(S)	46	19.88	.13
Question Format (Q)	1	301.04	Q x S	46	4.43	67.99*
Lookback Condition (L)	1	168.01	L x S	46	2.38	70.76*
Information Type (I)	1	450.67	I x S	46	3.64	123.70*
C x Q	1	1.04	Q x S	46	4.43	.24
C x L	1	10.01	L x S	46	2.38	4.22*
C x I	1	1.50	I x S	46	3.64	.41
Q x L	1	33.84	Q x L x S	46	3.18	10.64*
Q x I	1	28.17	Q x I x S	46	3.31	8.52*
L x I	1	44.01	L x I x S	46	2.05	21.49*
C x Q x L	1	7.59	Q x L x S	46	3.18	2.39
C x Q x I	1	14.01	Q x I x S	46	3.31	4.24*
C x L x I	1	.51	L x I x S	46	2.05	.25
Q x L x I	1	2.34	Q x L x I x S	46	1.86	1.26
C x Q x L x I	1	5.51	Q x L x I x S	46	1.86	2.97

* $p < .05$

The first significant interaction of interest involved Cognitive Style and Lookback Condition (see Figure 1). The discrepancy between field dependent and field independent group scores differed depending on lookba k condition. Moreover, tests of simple effects for cognitive style groups using Tukey's HSD procedure were significant for the no-lookback condition (field independent group scores exceeding field dependent group scores).

Figure 1

Interaction Effect for Cognitive Style and Lookback Condition



_____ Field Dependent

---------- Field Independent

Figure 2 presents the second significant interaction of interest involving Cognitive Style, Question Format and Information Type. In this three-way interaction, discrepancies between Cognitive Style groups differed for Information Type depending upon Question Format. Tukey's HSD procedure was used to test for significant differences between pairs of means for simple effects. The only significant comparison was the Cognitive Style group difference for implicit information under the multiple-choice format. In this case scores for the field independent group exceeded those for the field dependent group.

Discussion

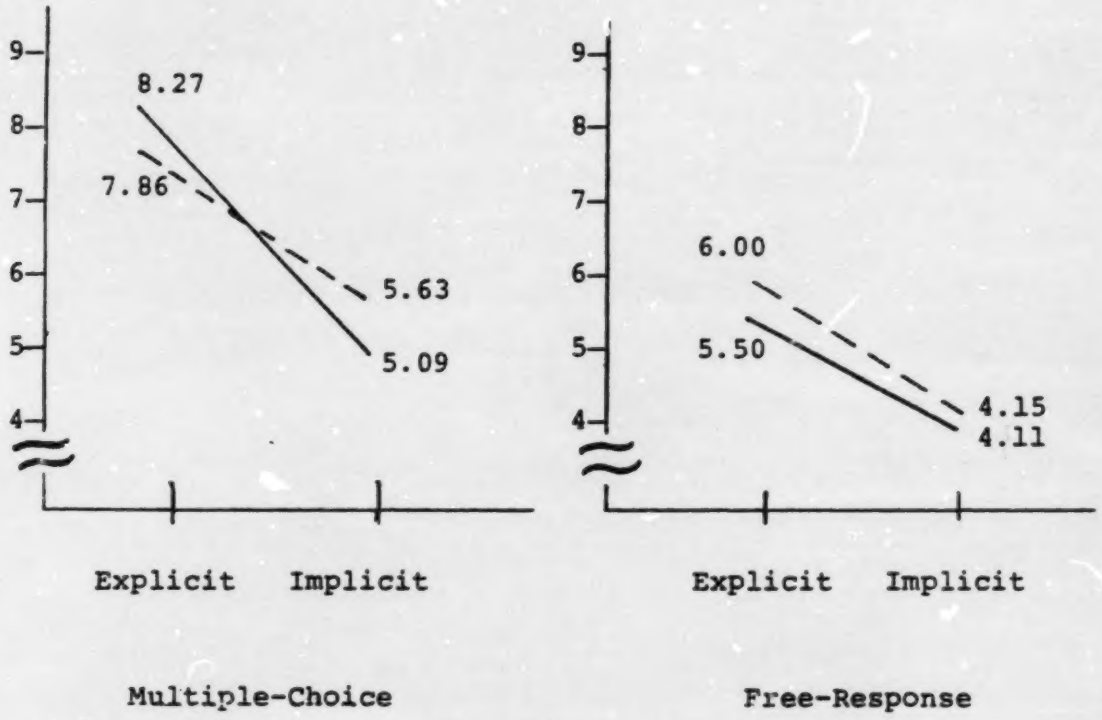
This study has examined the relations of cognitive style to reading comprehension test performance for deaf adolescents. Several findings are of particular interest to researchers and practitioners.

Cognitive style (as measured by an embedded figures task) made significant contributions to the reading comprehension test score variance for particular composite item types. Specifically, cognitive style contributed to reading comprehension items which consisted of free-response formats, which provided for no looking back to the passage, and which tapped text-implicit information.

When deaf subjects were blocked into field dependent and field independent cognitive style groups, they did not differ on over-all reading comprehension performance (no significant main effect), but their mean scores did differ according to item characteristics. Field independent readers scored higher than did field dependent readers on items which did not allow reinspection of the passages. This finding is consistent with theories linking this cognitive style dimension to efficiency and effectiveness of working memory (e.g., Goodenough, 1976). Answering questions without accessing text requires effective memorial strategies during coding, rehearsal, and retrieval of relevant information. Field independent deaf readers appear to be more effective than their field dependent

Figure 2

Interaction Effect for Cognitive Style,
Question Format and Information Type



_____ Field Dependent

---------- Field Independent

counterparts in utilizing such memory strategies. This finding is consistent with a vast array of research using hearing subjects (e.g., Berger & Goldberger, 1979; Davis & Frank, 1979; Robinson & Bennink, 1978).

Cognitive style also interacted with question format and information type. specifically, scores for field independent students exceeded those for field dependent students for implicit information presented in the multiple-choice format. In multiple-choice formats, making accurate decisions concerning best choices with inferential-type questions ("implicit" information) requires careful analysis and option-testing. When more than one option is "plausible," readers need to reflect deliberately upon these choices, inferencing optimal relations with the question stem. Field independent readers have been characterized as more analytical and reflective in information-processing strategies than are field dependent readers (e.g., Witkin, 1978). This finding for deaf readers, then, is consistent with prior research and theory concerning the effects on information-processing of field independent hearing subjects' superior cognitive re-structuring and analysis skills.

Implications

Educators of deaf adolescents are urged to consider both cognitive style and test item factors in the optimal assessment of reading comprehension. For example, differential test administrations might be employed for field dependent and field independent students. The findings from this study suggest that certain cognitive style groups may be advantaged (or disadvantaged) by certain test item characteristics. Question formats, lookback conditions, and information types should all be included as potential test-bias factors relevant for deaf students with differing cognitive styles. In addition, caution should be exercised when generalizing findings from tests employing certain item facets to students with

different cognitive styles and to assessment outcomes utilizing different item facets.

Additional research is needed to explore effects of training in test-taking skills on performance for different types of readers. For example, field dependent students might benefit from explicit instruction in selection strategies for multiple-choice options of inferential-type questions. Training in reflection and analysis for these field dependent students could result in more effective test performance.

Results from this study suggest field independence as an important variable in deaf readers' prose processing and test-taking strategies. Future investigations might utilize hearing comparison groups since some previous research (e.g., Parasnis & Long, 1979) has identified differences between deaf and hearing subjects in overall cognitive style performance (deaf subjects being relatively more field dependent than hearing subjects). Also, error analysis procedures (as suggested by Glaser, 1981) might further enlighten our understanding of how individual differences interact with testing and guessing strategies.

In conclusion, the cognitive styles of deaf students appear to interact with certain assessment components in reading comprehension. Sensitivity to these salient individual differences should inform practitioners, researchers, and test design specialists in their efforts toward enhancing optimal measurement of cognitive and linguistic competencies for deaf students.

References

Anderson, S. K. (1978). An investigation of the effect of syntactic modification of reading material on the comprehension of h.i. students. Unpublished doctoral dissertation, University of Maryland.

Annis, L. F. (1979). Effect of cognitive style and learning passage organization on study technique effectiveness. Journal of Educational Psychology, 71, 620-626.

Bennink, C. D., & Spoelstra, T. (1979). Individual differences in field articulation as a factor in language comprehension. Journal of Research in Personality, 13, 480-489.

Benson, J., & Crocker, L. (1979). The effects of item format and reading ability on objective test performance: A question of validity. Educational and Psychological Measurement, 39, 381-387.

Berger, E., & Goldberger, L. (1979). Field dependence and short-term memory. Perceptual and Motor Skills, 49, 37-96.

Blanton, R. L., & Nunnally, J. (1964). Semantic habits and cognitive style processes in the deaf. Journal of Abnormal and Social Psychology, 68, 397-402.

Conley, J. (1976). The role of idiomatic expressions in the reading of deaf children. American Annals of the Deaf, 121, 381-385.

Davey, B. (1983). Cognitive styles and reading research: Some methodological concerns and future directions. Reading Psychology, 4, 65-78.

Davey, B., LaSasso, C., & Macready, G. (In press). A comparison of reading comprehension task performance for deaf and hearing subjects. Journal of Speech and Hearing Research.

Davis, J. K., & Frank, B. M. (1979). Learning and memory of field independent-dependent individuals. Journal of Research in Personality, 13, 469-479.

Denny, D. R. (1974). Relationship of three cognitive style dimensions to elementary reading abilities. Journal of Educational Psychology, 66, 702-709.

Drum, P. A., Calfee, R. C., & Cook, L. K. (1981). The effects of surface structure variables on performance in reading comprehension tests. Reading Research Quarterly, XVI, 486-514.

Fiebert, M. (1967). Cognitive styles in the deaf. Perceptual and Motor Skills, 24, 319-329.

Glaser, R. (1981). The future of testing. American Psychologist, 36, 923-936.

Goodenough, D. R. (1976). The role of individual differences in field dependence as a factor in learning and memory. Psychological Bulletin, 83, 675-694.

Haertel, E. H. (1980). Determining what is measured by multiple-choice tests of reading comprehension. Unpublished doctoral dissertation, University of Chicago.

Harding, V. E. (1978). Question difficulty: A study of the interactions between teacher judgment and actual student performance on questions in a recall and a reinspection testing situation. Unpublished doctoral dissertation, University of Maryland.

Heim, A. W., & Watts, K. P. (1967). An experiment on multiple-choice versus open-ended answering in a vocabulary test. British Journal of Educational Psychology, 37, 339-346.

Kendall, J. R., Mason, J. M., & Hunter, W. (1980). Which comprehension? Artifacts in the measurement of reading comprehension. Journal of Educational Research, 73, 233-236.

Kender, J. P., & Rubenstein, H. (1977). Recall versus reinspection in IRI comprehension tests. Reading Teacher, 30, 776-779.

LaSasso, C. (1979). The effect of WH question format versus incomplete statement format on deaf subjects' demonstration of comprehension of text-explicit information. American Annals of the Deaf, 124, 833-837.

McCall, W., & Crabbs, L. (1961). Standard test lessons in reading. New York: Teachers College Press.

McKee, B., & Lang, H. G. (1982). A comparison of deaf students' performance on true-false and multiple-choice items. American Annals of the Deaf, 127, 49-54.

Parasnis, I. (In press). The effects of parental deafness and early exposure to manual communication on the cognitive skills, English language skill and field-independence of young deaf adults. Journal of Speech and Hearing Research.

Parasnis, I., & Long, G. (1979). Relationships among spatial skills, communication skills, and field independence in deaf students. Perceptual and Motor Skills, 49, 879-887.

Parasnis, I., & Samar, V. (1982). Visual perception of verbal information by deaf people. In D. Sims, G. Walter, & R. Whitehead (Eds.), Deafness and communication: Assessment and training. Baltimore: Williams and Wilkins.

Pearson, P. D., & Johnson, D. D. (1978). Teaching reading comprehension. New York: Holt, Rinehart and Winston.

Pyrczak, F. (1975-1976). A responsive note on measures of the passage dependence of reading comprehension test items. Reading Research Quarterly, 11, 112-117.

Robinson, J. A., & Bennink, C. (1978). Field articulation and working memory. Journal of Research in Personality, 12, 439-449.

Rudner, L. (1978). Using standard tests with the hearing-impaired: The problem of item bias. The Volta Review, 80, 31-40.

Russell, W., Quigley, S., & Power, D. (1976). Linguistics and deaf children. Washington, D.C.: Alexander Graham Bell Association.

Spiro, R., & Tirre, W. (1980). Individual differences in schema utilization during discourse processing. Journal of Educational Psychology, 72, 204-208.

Traub, R., & Fisher, C. (1977). On the equivalence of constructed-response and multiple-choice tests. Applied Psychological Measurement, 1, 355-369.

Ward, W. (1982). A comparison of free-response and multiple-choice forms of verbal aptitude tests. Applied Psychological Measurement, 6, 1-11.

Wilson, K., Karchmer, M., & Jensema, C. (1978). Literal vs. inferential item analysis of reading achievement in hearing-impaired students. In H. Reynolds (Ed.), Gallaudet College Conference on Reading in Relation to Deafness. Washington, D.C.: Gallaudet College Press.

Witkin, H. (1950). Perception of the upright when the direction of the force acting on the body is changed. Journal of Experimental Psychology, 40, 93-106.

Witkin, H. (1978). Cognitive styles in personal and cultural adaptation. Worcester, MA: Clark University Press.

Witkin, H., Moore, C., Goodenough, D., & Cox, P. (1977). Field-dependent and field-independent cognitive styles and their educational implications. Review of Educational Research, 47, 1-64.

Witkin, H., Oltman, P., Raskin, E., & Karp, S. (1971). A manual for the embedded figures tests. California: Consulting Psychologists Press, Inc.

Wittrock, M. C. (1979). The cognitive movement in instruction. Educational Researcher, 8, 5-11.

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